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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,779	06/23/2006	Halbe Hageman	P19059-US1	1384
27045	7590	12/30/2008		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER JAMA, ISAAK R	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 12/30/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,779

Applicant(s)

HAGEMAN, HALBE

Examiner

ISAAK R. JAMA

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/23/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 06/23/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 10 and 12-18 are rejected under 35 U.S.C. 102b as being anticipated by U.S. Patent Number 5,790,817 (Asghar).

3. Regarding claims 1 and 16-18 Asghar discloses a radio base station **[Figure 1]** comprising: a monitor **[Figure 3, # 212]**, memory **[Figure 3, # 202]**, and one or more resources **[Figure 3, #s 230, 232 i.e. A/D and D/A]**, said memory being connected to the monitor and arranged for storing tasks and data **[Figure 4, Step 402]**, each of said resources being connected to the monitor and arranged for at least one of performing a function and executing a program **[Column 3, lines 42-47]**, at least one analog signal manifold comprising input lines, output lines, and nodes for making connections between input and output lines, said input lines and output lines being connectable to predetermined resources **[Column 8, lines 46-51]**, and said nodes being arranged to perform a mathematic operation on an incoming signal on the input lines **[Column 12, lines 26-49; i.e. DSP architectural enhancements include using a register file to separate dual memories from functional units allows parallel operation of functional units including pipelining arithmetic logic unit (ALU)]**.

4. Regarding claim 2, Asghar discloses resources that are arranged to execute a program are also arranged to generate trigger signals and send them to the monitor, said monitor being arranged to receive said trigger signals, to read one or more tasks related to said trigger signals from said memory, to check whether resources required for performing said task are available and to send commands to selected resources specifying the task to be performed **[Column 8, lines 46-60; i.e. A/D conversion logic receives analog signals and provides corresponding digital signals to a DSP, and a D/A conversion logic receives digital signals from the DSP and provides corresponding analog signals output from the communication device]**.
5. Regarding claim 3, Asghar discloses connections between said memory and said monitor, and connections between said resources and said monitor are implemented by means of a bus **[Figure 3, # 214]**.
6. Regarding claim 4, Asghar discloses resources are arranged for mutual communication via said bus **[Figure 3, # 214]**.
7. Regarding claim 5, Asghar discloses wherein using the bus is based on a datagram principle **[column 2, lines 54-67; i.e. two or more DSPs are coupled through dedicated address and data buses]**.
8. Regarding claim 6, Asghar discloses wherein said memory comprises a task memory and a data memory **[column 8, lines 61-64; i.e. code which is synonymous with task and data memory]**.

9. Regarding claim 7, Asghar discloses wherein said monitor comprises a state machine sequencer for handling several state machines in parallel **[Figure 3, # 222, columns 5 & 6, lines 66-67 and 1-17]**.
10. Regarding claim 8, Asghar discloses wherein said memory comprises a ROM portion **[Figure 3, # 203; i.e. non-volatile memory]** and a RAM portion **[Figure 3, # 202, i.e. system memory]**, said ROM portion storing state machine definitions for said state machine sequencer, task definitions and default structures **[Columns 8 & 9, lines 65-67 and 1-11]**, said RAM portion storing dynamic data **[Column 9, lines 29-32]**.
11. Regarding claim 12, Asghar discloses, Asghar discloses wherein said one or more resources comprises at least one of: a transmitter, a receiver, a digital analog converter, an analog digital converter, a control unit, and a digital signal processor **[Figure 2, #s 212a, 212b, 232, 222, 212a and b]**.
12. Regarding claim 10, Asghar discloses wherein said monitor comprises an executor arranged for: sending commands to resources; sending task block requests to memory; receiving status information from resources; and receiving task blocks from memory **[Figure 4, column 10, lines 26-33]**.
13. Regarding claim 13, Asghar discloses wherein said one or more resources comprise at least one digital signal processor storing an executable image for performing a program **[Figure 5, # 212]**.
14. Regarding claim 14, Asghar discloses wherein said one or more resources comprise a plurality of transmitters, a plurality of receivers, a plurality of digital analog converters, and a plurality of analog digital converters said at least one analog signal

manifold being arranged for making connections between said plurality of transmitters and said plurality of digital analog converters, and for making connections between said plurality of receivers and said plurality of analog digital converters **[Figure 2, #s 212a, 212b, 232, 222, 212a and b, and Figure 3, #214 connecting all those elements]**.

15. Regarding claim 15, Asghar discloses wherein said mathematic operations comprise at least one of multiplying, adding, subtracting, and one-to-one connecting **[Column 12, lines 26-49; i.e. DSP architectural enhancements includes pipelining arithmetic logic unit (ALU) that does mathematical operations]**.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,790,817 (Asghar) in view of U.S. patent Number 6,976,021 (Ramakrishnan).

18. Regarding claim 9, Asghar is discussed above in relation to claim 8; but Asghar fails to specifically disclose that the RAM portion stores a resource allocation table, a data block list, and data blocks. Ramakrishnan teaches a method and system for managing a re-usable resources whereby a DRAM memory stores a hash table and active doubly linked lists that are initialized and managed via a resource allocation module **[Figure 28, column 15, lines 36-55]**. Therefore, it would have been obvious to

a person of ordinary skill in the art at the time the invention was made to include the method of Ramakrishnan in the multiprocessor communication architecture Asghar in order to facilitate fast accessibility.

19. Regarding claim 11, Asghar further discloses wherein said monitor comprises an executor arranged for: sending commands to resources; sending task block requests to memory; receiving status information from resources; receiving task blocks from memory; and maintaining said resource allocation table **[Figure 4, column 10, lines 26-33]**.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication Number 2002/0123365 (Thorson et al.) teaches scalable base station architecture. U.S. Patent Application Publication Number 2003/0200429 (Aspegren et al.) teaches distributed processor architecture of a base station. U.S. Patent Application Publication Number 2003/0026237 (Mohebbi et al.) teaches a cellular base station with soft partitioning. U.S. Patent Application Publication Number 2002/0064142 (Antonio et al.) teaches base station architecture. U.S. Patent Application Publication Number 2003/0008684 (Ferris) teaches a digital wireless base station.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAC R. JAMA whose telephone number is (571)270-5887. The examiner can normally be reached on 7:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/IRJ/

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617